

Applicant: Martin Fangmeier
Application No.: 10/530,460

REMARKS

Claims 1-14 are currently pending in this application, as amended. By the present amendment, claims 1, 2, 5 and 6 have been amended and new claims 10-14 have been added. Applicant submits that no new matter has been introduced into the application by these amendments.

REJECTIONS UNDER 35 U.S.C. §102

In the Action, claims 1-9 were rejected under 35 U.S.C. §102(b) as anticipated by U.S. 3,056,423 to Lieser. Applicant respectfully traverses this rejection.

Claim 1 is directed to a backflow prevention device comprising a mounting housing that can be inserted into a fluid conduit. At least one sealing ring is provided that is held in an annular groove provided on an outer circumference of the mounting housing which provides a seal between the mounting housing and the fluid conduit. The backflow prevention device is closed and a fluid volume is sealed at a flow outlet side. The sealing ring can be shifted axially in the groove against a restoring force from a sealing position into a leakage position in order to compensate pressure.

In contrast to the present invention, Lieser is directed an adjustable by-pass valve which provides for fine adjustment of the by-pass fluid flow resistance. In the closed position of the ball check valve, the by-pass passage (22) is open and leads to

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a series of threads which allow fluid transmission up to a sealing ring (25) which maintains a seal between the collar (21) and the body (10) in all conditions. See column 2, lines 62-66. In order to change the flow resistance, the collar (21) can be loosened from the body (10) such that the o-ring (25) is subjected to less compressive force thereby allowing easier fluid flow to the passages (23).

In contrast to Lieser, claim 1 requires that the mounting housing (2) can be inserted into a fluid conduit. It is clear that the adjustment collar (21) of Lieser is not a fluid conduit and the actual fluid flow is carried via an unshown conduit through the body (10) via connections at the threads (11) and threads at the opposite end (b) of the body (10). To the extent that these connections for fluid conduits are on the body (10), it can't be inserted in a fluid conduit, and the collar (21) does not allow water passage in the flow direction and therefore by definition can't be considered as a fluid conduit.

Additionally, the backflow prevention device of claim 1 is closed and a fluid volume is sealed at a flow outlet side until an over pressure situation is achieved. At this point, the sealing ring is shifted axially in the groove against a restoring force from a sealing position into a leakage position in order to compensate pressure. In contrast, as is clearly illustrated in Lieser and described in the specification, the change in flow resistance of the Lieser valve is created by changing the degree to which the o-ring packing (25) is compressed via the

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adjustable collar (21). See column 2, lines 49-56. There is no suggestion in Lieser or any provisions provided to allow axial shifting of the sealing ring against a restoring force from a sealing position into a leakage position in order to compensate pressure. Accordingly, withdrawal of the section 102(b) rejection of claim 1 is respectfully requested.

Claims 2-9 depend from claim 1 and should be similarly patentable for the reasons noted above in connection with claim 1. Additionally, with respect to claim 2, there is no suggestion or disclosure in Lieser of at least one resilient elastic restoring element that acts on the sealing ring. The Action notes that the sealing element (25) itself is the elastic restoring element. However, it is clear that the o-ring (25) is not an elastic restoring element as defined by the present invention, but rather would be analogous to the sealing ring (4). With respect to claim 5, there is also no suggestion of the annular guide segment (9) that tapers against an inflow direction of the backflow prevention device and does not contact the sealing ring in the sealing position. As explained in detail in the present application, this annular guide segment provides an expanded partial area for the sealing ring in the leakage position. With respect to claim 6, there is no suggestion in Lieser of the restoring element being supported on a radial wall located at a flow inlet side of the annular groove and spaced apart from the sealing ring.

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NEW CLAIMS

New claims 10-14 recite additional subject matter disclosed in the present application that is not suggested or disclosed in the prior art.

CONCLUSION

If the Examiner believes that any additional minor formal matters need to be addressed in order to place the present application in condition for allowance, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendments and remarks, applicant respectfully submits that the present application, including claims 1-14, is in condition for allowance, and a Notice to that effect is respectfully requested.

Respectfully submitted,

Martin Fangmeier

By /Randolph J. Huis/
Randolph J. Huis
Registration No. 34,626
(215) 568-6400

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103
RJH/dmm